


COMPUTERWORLD An IDG company
QuickLink

Search

Advanced Search

[Home](#)[News](#)[Browse Topics](#)[Departments](#)[Services](#)[Subscribe](#)[Events](#)[Store](#)[Jobs](#)
[Latest Headlines](#) [Week in Review](#) [E-mail Newsletters](#) [Special Coverage](#) [This Week in Print](#) [Corrections](#) [Mobile Channel](#)


Thin is in at luxe casino

Vegas hotel opts for thin clients over PCs

Story by [April Jacobs](#)

NOVEMBER 23, 1998 - LAS VEGAS -- The Bellagio, the newest hotel and casino in Las Vegas, complete with a fine-art gallery and Italian Renaissance-inspired decor, cost \$1.7 billion and took five years to build.

It's also a bastion of thin-client architecture. Because apart from having the goal of becoming a first-class resort, the casino is an around-the-clock technology operation with a complex, \$25 million information technology infrastructure that supports everything from gambling pits to restaurants that serve thousands of guests and employees.

So when it came time to figure out a way to minimize support costs and ensure uptime, Glenn Bonner, CIO at Bellagio owner Mirage Resorts Inc., decided to eliminate what he viewed as a potential obstacle: the PC.

Knowledge Centers

- Careers
- CRM
- Data Management
- Development
- E-business
- ERP/Supply Chain
- Hardware
- IT Management
- Mobile & Wireless
- Networking
- Operating Systems
- ROI
- Security
- Storage
- Web Site Mgmt
- xSP
- More topics...

LATEST HEADLINE

TOP STORY

- **IT middle man: They're already**
- Britain awards 5 contracts for ele patient records
- Linus weighs in hippie dream

Departments

- QuickStudies
- SharkTank
- FutureWatch
- Opinions/Letters
- More departments...

Services

- Forums
- Research
- QuickPolls
- WhitePapers
- Buyers' Guide
- More services...

"Imagine a pit boss calling and saying that [his] PC is down. In five minutes, your whole guest-service model flies out the window," Bonner said.

He said the need for continuous uptime led the company to conclude that a centralized application and server model using thin clients was the way to go. The "bricks," as IT refers to the clients, rarely break, and any service or troubleshooting can be done from a central location.

The simple-client theory also carried over to the company's thinking on servers. Bellagio focused on ways to eliminate potential problems — one of which was making sure that typical points of failure were minimized.

"We are always very concerned about footprint and pieces dying," Bonner said, noting that he and his team pay careful attention to typical points of failure such as power supplies and fans on the servers.

THIN AND THINNER

Bellagio has about 50 Intel-based servers from Round Rock, Texas-based Dell Computer Corp. Among other functions, the servers support about 2,000 thin clients, 1,200 of which are actually Windows-based terminals. The rest are PCs that function like thin clients — running their applications from the servers.

Bellagio chose Dell servers over those from Compaq Computer Corp. because the Dell line had Intel Corp.'s latest processor, the four-way Xeon. Yet the new line was a "tough leap of faith," according to Bonner, not merely because it was new but also because Mirage Resorts initially bought a couple of Compaq servers which it also uses at its other Las Vegas properties. Those include The Mirage and Treasure Island. "Timing is everything," Bonner said.

The company didn't worry that using thin clients would test its bandwidth because the application sessions run on the servers, said Craig Bender, lead systems engineer at Bellagio. The servers transmit only the user interface across the network to the client, rather than the large stream of data a PC-based client/server setup would require, he said.

Uptime at the company's front desk, where thin clients operate guest registration services, also helps guard against lost business, according to Katherine Schoeni, assistant manager of the front office. Downtime could frustrate potential guests, who might then go elsewhere for their lodging — and for gambling and shopping.

Bellagio's guest list can go as high as 3,000, said Schoeni, noting that on any given day the hotel deals with hundreds of arrivals and departures. The front desk system also is tied in with all guest services, from food service billing to in-room movies.

■ [Send feedback](#) ■ [Printer friendly](#) ■ [E-mail this](#) ■ [Request reprints](#)

Smart
Storag
Don't Wast
Time or Sp

EXECUTIVE

COMPUTERV
Stor

A vertical banner with a blue background and a faint grid pattern. The text is arranged vertically. At the top, it says 'Smart Storag' in large bold letters, followed by 'Don't Wast' and 'Time or Sp' on separate lines. In the middle, the word 'EXECUTIVE' is written in large, white, bold, sans-serif capital letters. At the bottom, it says 'COMPUTERV' in smaller white capital letters, followed by 'Stor' in a large, white, serif font.

Sponsored Links

Complimentary Whitepaper! Overcoming Obstacles to the Alignment of IT and the business.

Application Integration Network View a Interactive Demo

Siebel- APPLICATION INTEGRATION ZONE

Work without waiting: Intel Hyper-Threading Technology ®

FREE EDUCATIONAL SEMINARS ON PROACTIVE NETWORK SECURITY - sponsored by nCircle. Register today!

Click here for your Spam: close up and personal white paper!

Middleware is Everywhere. See it with Tivoli software.

Think You've Taken Advantage of all the Cost Savings in IT? Think Again.

Webinar: Aventis Behring chooses GoodLink wireless email

Computerworld Executive Briefing: 'Storage Get's Strategic', a \$195 -value, FREE courtesy of VERITAS

Effective Emergency Communications – Free EnvoyWorldWide White Paper

Finding Relevant Information Requires a Lot More Than Search... FREE Aberdeen Executive Paper

EMC's ControlCenter 5.1.1 - eWeek Labs tests and tells how this stacks up.

Lotus Software. Middleware is Everywhere

FREE storage benchmarks: Who's tops in price/performance?

Unicenter® Infrastructure Management Software From CA

Compare Sprint to AT&T Wireless Sprint comes out on top

AMD: Introduces the AMD Opteron™ Processor

Market Place Links

Gateway Servers on Sale Now - Save up to \$400 - Save up to \$400 on select Gateway tower and rack mount servers featuring powerful Intel Xeon processors. Limited time only.

Complete Payroll by Intuit Payroll Svcs - The better way to help you do payroll. Process from within QuickBooks then outsource time consuming tasks - payroll tax calculations, payment, filing. Backed by our "No-Penalties" guarantee.

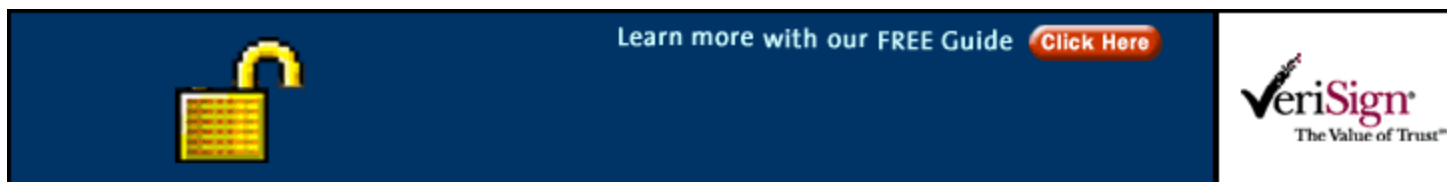
Need a MS Exchange Spam Filter?? - Spam sucks. Your life shouldn't. iHateSpam SE was uniquely developed to be both user- and admin-friendly. Control spam according to the needs of your company and users. V5.5, 2000, Exchange 2003, and Gateway. Reader's Choice Winner 2003, Best Antispam Tool.

Parature Online Support Software - Industry's most powerful online support portal to manage and deflect

up to 80% of your incoming service inquiries. The #1 web-based help desk software that features self-service, ticket management, contact management, online surveys, forums and more.

Corporate Email Security - NwTech, Inc - Choose among leading leading antispam, antivirus, and web filtering solutions for your organizations. We offer both trial software, and hardware evaluations for all of our solutions.

[About Us](#) [Advertise](#) [Contacts](#) [Editorial Calendar](#) [Help Desk](#) [Privacy Policy](#) [Reprints](#) [Site Map](#)



Learn more with our FREE Guide [Click Here](#)

VeriSign
The Value of Trust™

Copyright © 2003 Computerworld Inc. All rights reserved. Reproduction in whole or in part in any form or medium without express [written permission](#) of Computerworld Inc. is prohibited. Computerworld and Computerworld.com and the respective logos are trademarks of International Data Group Inc.